

**BIOLOGICAL DOSIMETRY FOR THE ANALYTICAL
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Biological dosimetry can be defined as the measurement of some property indicating that an organism has a particular susceptibility, has had a particular exposure, or is demonstrating a particular response to some known or unknown external perturbation. The property may be binary, such as the presence or absence of a biomarker for cancer; or the property may be continuous, such as a level of chromosome aberration or somatic mutation. The measurement may be used for optimizing therapy to an individual, studying the epidemiology of a toxic exposure, understanding the mechanism of disease, or estimating health risk. Applications are numerous, and often have a cytometric potential involving rare event detection, quantitative cellular measurement, or automation. The dominant examples to be discussed this week involve somatic and heritable mutation, reproductive function, carcinogenesis and cancer therapy.

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